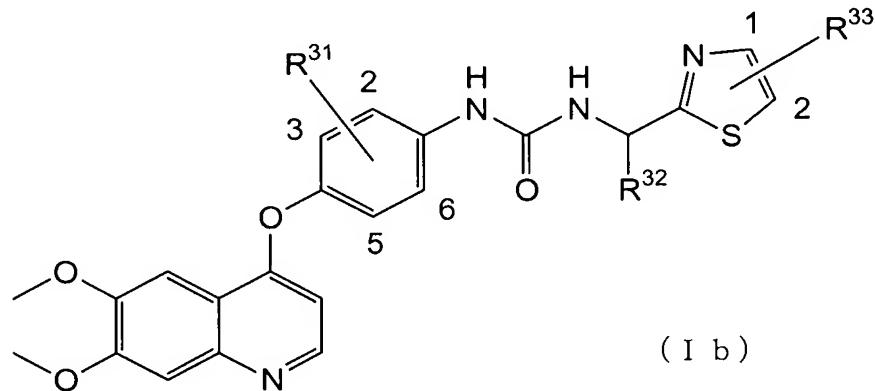


IN THE CLAIMS

Please amend the claims as follows:

Claims 1-18 (Cancelled)

Claim 19 (Currently Amended): ~~The compound according to claim 1, A compound of represented by formula (Ib) or a pharmaceutically acceptable salt or solvate thereof:~~



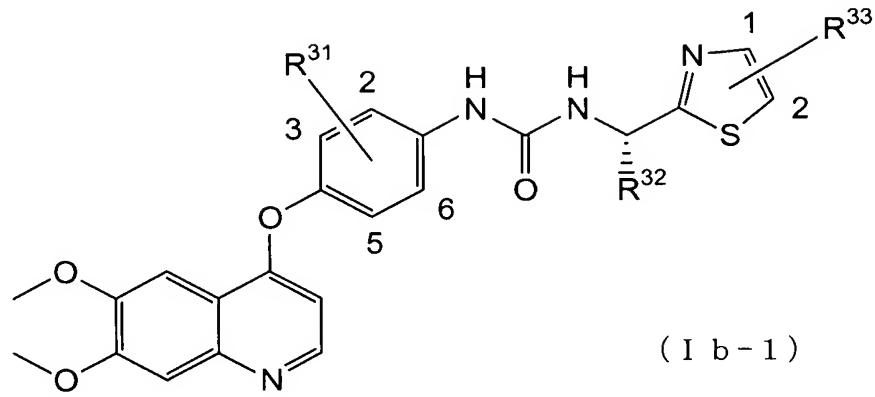
wherein

$R^{31}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

$R^{32}$  represents methyl, and

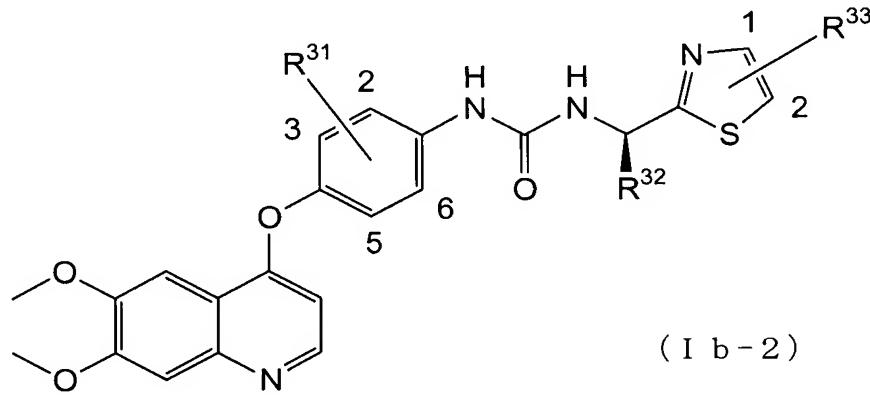
$R^{33}$  represents a hydrogen atom, methyl at 1-position, methyl at 2-position, or methyl at 1- and 2-positions.

Claim 20 (Currently Amended): The compound according to claim 19, wherein the compound represented by formula (Ib) is represented by formula (Ib-1):



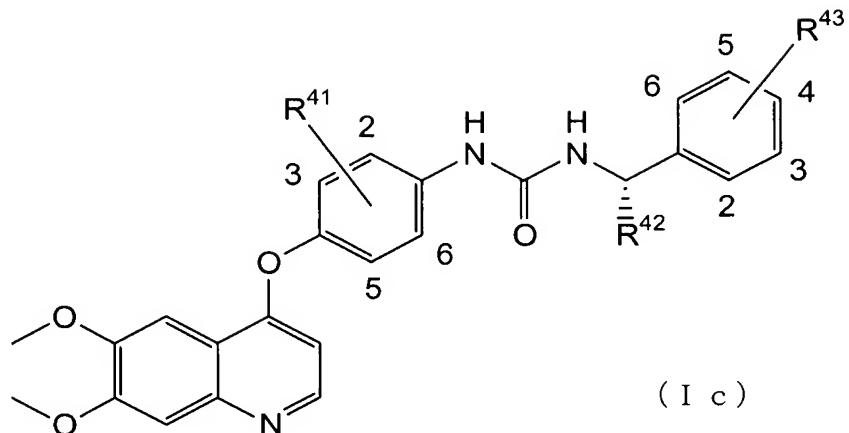
wherein  $R^{31}$ ,  $R^{32}$ , and  $R^{33}$  are as defined in formula (Ib).

Claim 21 (Currently Amended): The compound according to claim 19, wherein the compound represented by formula (Ib) is represented by formula (Ib-2):



wherein  $R^{31}$ ,  $R^{32}$ , and  $R^{33}$  are as defined in formula (Ib).

Claim 22 (Currently Amended): ~~The compound according to claim 1, represented by~~  
A compound of formula (Ic) or a pharmaceutically acceptable salt or solvate thereof:



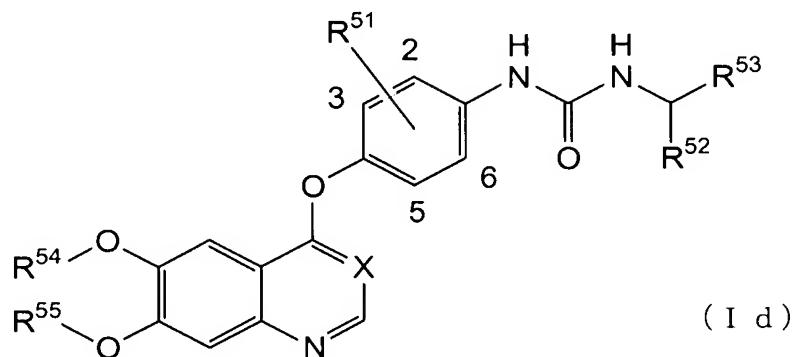
wherein

$R^{41}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

$R^{42}$  represents methyl,

$R^{43}$  represents a fluorine atom at 4-position, a bromine atom at 3-position, a bromine atom at 4-position, methoxy at 2-position, methoxy at 3-position, methoxy at 4-position, a chlorine atom at 4-position, methyl at 4-position, or nitro at 4-position.

Claim 23 (Currently Amended): ~~The compound according to claim 1, represented by~~  
A compound of formula (Id) or a pharmaceutically acceptable salt or solvate thereof:



wherein

$X$  represents CH or N,

$R^{51}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

$R^{52}$  represents methyl,

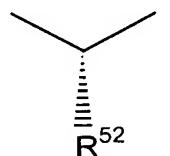
$R^{53}$  represents imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, or isothiazolyl in which one or two hydrogen atoms on the groups are optionally substituted by a halogen atom or  $C_{1-4}$  alkyl, and

$R^{54}$  and  $R^{55}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-6}$  alkyl in which the alkyl group is optionally substituted by hydroxyl; a halogen atom;  $-OR^{56}$  wherein  $R^{56}$  represents  $C_{1-4}$  alkyl;  $-NR^{57}R^{58}$  wherein  $R^{57}$  and  $R^{58}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl or  $-OR^{59}$  wherein  $R^{59}$  represents  $C_{1-4}$  alkyl; or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or  $C_{1-4}$  alkyl.

Claim 24 (Original): The compound according to claim 23, wherein

$X$  represents  $CH$ , and

$R^{52}$  represents



Claim 25 (Original): The compound according to claim 24, wherein  $R^{54}$  and  $R^{55}$  represent methyl.

Claim 26 (Original): The compound according to claim 24, wherein

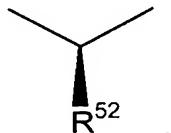
$R^{54}$  represents methyl, and

$R^{55}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 27 (Original): The compound according to claim 23, wherein

$X$  represents  $CH$ , and

$R^{52}$  represents



Claim 28 (Original): The compound according to claim 27, wherein  $R^{54}$  and  $R^{55}$  represent methyl.

Claim 29 (Original): The compound according to claim 27, wherein

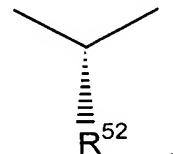
$R^{54}$  represents methyl, and

$R^{55}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 30 (Original): The compound according to claim 23, wherein

$X$  represents  $N$ , and

$R^{52}$  represents



Claim 31 (Original): The compound according to claim 30, wherein  $R^{54}$  and  $R^{55}$  represent methyl.

Claim 32 (Original): The compound according to claim 30, wherein

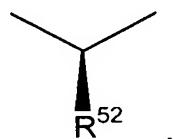
$R^{54}$  represents methyl, and

$R^{55}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 33 (Original): The compound according to claim 23, wherein

$X$  represents N, and

$R^{52}$  represents



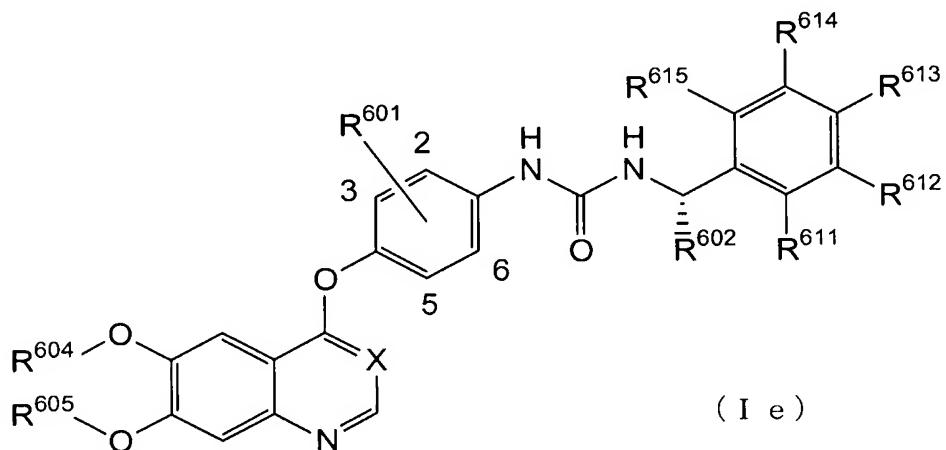
Claim 34 (Original): The compound according to claim 33, wherein  $R^{54}$  and  $R^{55}$  represent methyl.

Claim 35 (Original): The compound according to claim 33, wherein

$R^{54}$  represents methyl, and

$R^{55}$  represents  $C_{1-4}$  alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 36 (Currently Amended): ~~The compound according to claim 1, represented by~~  
A compound of formula (Ie) or a pharmaceutically acceptable salt or solvate thereof:



wherein

$R^{601}$  represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

$R^{602}$  represents methyl,

$X$  represents N or CH,

$R^{604}$  and  $R^{605}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-6}$  alkyl in which the alkyl group is optionally substituted by hydroxyl; a halogen atom;  $-OR^{606}$  wherein  $R^{606}$  represents  $C_{1-4}$  alkyl;  $-NR^{607}R^{608}$  wherein  $R^{607}$  and  $R^{608}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl or  $-OR^{609}$  wherein  $R^{609}$  represents  $C_{1-4}$  alkyl; or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or  $C_{1-4}$  alkyl, and

$R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$ , which may be the same or different, represent a hydrogen atom;  $C_{1-6}$  alkyl;  $-OR^{616}$  wherein  $R^{616}$  represents  $C_{1-4}$  alkyl; a halogen atom; nitro; or  $-NR^{617}R^{618}$  wherein  $R^{617}$  and  $R^{618}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{619}$  wherein  $R^{619}$  represents  $C_{1-4}$  alkyl, or  $-NR^{620}R^{621}$  wherein  $R^{620}$  and  $R^{621}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl.

Claim 37 (Original): The compound according to claim 36, wherein  $X$  represents CH and all of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represent a hydrogen atom, or any one of  $R^{611}$ ,  $R^{612}$ ,  $R^{613}$ ,  $R^{614}$ , and  $R^{615}$  represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 38 (Original): The compound according to claim 37, wherein all of R<sup>611</sup>, R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or any one of R<sup>611</sup>, R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represents C<sub>1-6</sub> alkyl, -OR<sup>616</sup>, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 39 (Original): The compound according to claim 38, wherein R<sup>611</sup> represents methoxy and R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or R<sup>612</sup> represents a bromine atom or methoxy and R<sup>611</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or R<sup>613</sup> represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R<sup>611</sup>, R<sup>612</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom.

Claim 40 (Previously Presented): The compound according to claim 37, wherein R<sup>604</sup> and R<sup>605</sup> represent methyl.

Claim 41 (Previously Presented): The compound according to claim 37, wherein R<sup>604</sup> represents methyl and R<sup>605</sup> represents C<sub>1-4</sub> alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 42 (Original): The compound according to claim 36, wherein X represents N and all of R<sup>611</sup>, R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or any one of R<sup>611</sup>, R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

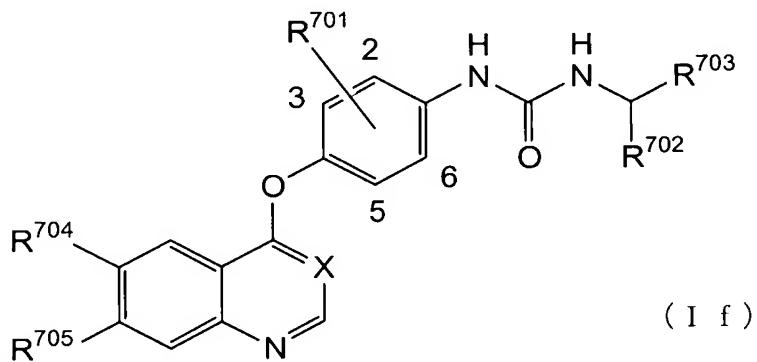
Claim 43 (Original): The compound according to claim 42, wherein all of R<sup>611</sup>, R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or any one of R<sup>611</sup>, R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represents C<sub>1-6</sub> alkyl, -OR<sup>616</sup>, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 44 (Original): The compound according to claim 43, wherein R<sup>611</sup> represents methoxy and R<sup>612</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or R<sup>612</sup> represents a bromine atom or methoxy and R<sup>611</sup>, R<sup>613</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom, or R<sup>613</sup> represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R<sup>611</sup>, R<sup>612</sup>, R<sup>614</sup>, and R<sup>615</sup> represent a hydrogen atom.

Claim 45 (Previously Presented): The compound according to claim 42, wherein R<sup>604</sup> and R<sup>605</sup> represent methyl.

Claim 46 (Previously Presented): The compound according to claim 42, wherein R<sup>604</sup> represents methyl and R<sup>605</sup> represents C<sub>1-4</sub> alkyl substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 47 (Currently Amended): ~~The compound according to claim 1, represented by~~  
A compound of formula (If) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

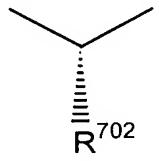
R<sup>701</sup> represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, methoxy at 2-position, methoxy at 3-position, or methyl at 2- and 5-positions,

R<sup>702</sup> represents C<sub>1-4</sub> alkyl,

$R^{703}$  represents imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, or isothiazolyl in which one or two hydrogen atoms on the groups are optionally substituted by a halogen atom or  $C_{1-4}$  alkyl, and

$R^{704}$  and  $R^{705}$ , which may be the same or different, represent a hydrogen atom; hydroxyl; nitro; cyano; a halogen atom;  $-NR^{706}R^{707}$  wherein  $R^{706}$  and  $R^{707}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{708}$  wherein  $R^{708}$  represents  $C_{1-4}$  alkyl, or  $-NR^{709}R^{710}$  wherein  $R^{709}$  and  $R^{710}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $-CONR^{711}R^{712}$  wherein  $R^{711}$  and  $R^{712}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{713}$  wherein  $R^{713}$  represents  $C_{1-4}$  alkyl, or  $-NR^{714}R^{715}$  wherein  $R^{714}$  and  $R^{715}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $-COOR^{716}$  wherein  $R^{716}$  represents a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl,  $-OR^{717}$  wherein  $R^{717}$  represents  $C_{1-4}$  alkyl, or  $-NR^{718}R^{719}$  wherein  $R^{718}$  and  $R^{719}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl;  $C_{1-6}$  alkyl;  $C_{2-6}$  alkenyl;  $C_{2-6}$  alkynyl; or  $C_{1-6}$  alkoxy, in which the alkyl, alkenyl, alkynyl, and alkoxy groups are optionally substituted by hydroxyl, a halogen atom,  $-OR^{720}$  in which  $R^{720}$  represents  $C_{1-4}$  alkyl,  $-NR^{721}R^{722}$  wherein  $R^{721}$  and  $R^{722}$ , which may be the same or different, represent a hydrogen atom or  $C_{1-4}$  alkyl in which the alkyl group is optionally substituted by hydroxyl or  $-OR^{723}$  wherein  $R^{723}$  represents  $C_{1-4}$  alkyl, or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or  $C_{1-4}$  alkyl.

Claim 48 (Original): The compound according to claim 47, wherein X represents  $CH$ , and  $R^{702}$  represents

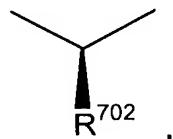


Claim 49 (Original): The compound according to claim 48, wherein R<sup>702</sup> represents methyl.

Claim 50 (Previously Presented): The compound according to claim 48, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 51 (Previously Presented): The compound according to claim 48, wherein R<sup>704</sup> represents methoxy, and R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 52 (Original): The compound according to claim 47, wherein X represents CH, and R<sup>702</sup> represents

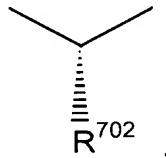


Claim 53 (Original): The compound according to claim 52, wherein R<sup>702</sup> represents methyl.

Claim 54 (Previously Presented): The compound according to claim 52, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 55 (Previously Presented): The compound according to claim 52, wherein R<sup>704</sup> represents methoxy, and R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 56 (Original): The compound according to claim 47, wherein X represents N, and R<sup>702</sup> represents

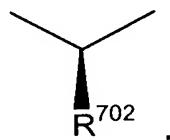


Claim 57 (Original): The compound according to claim 56, wherein R<sup>702</sup> represents methyl.

Claim 58 (Previously Presented): The compound according to claim 56, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 59 (Previously Presented): The compound according to claim 56, wherein R<sup>704</sup> represents methoxy, R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 60 (Original): The compound according to claim 47, wherein X represents N, and R<sup>702</sup> represents

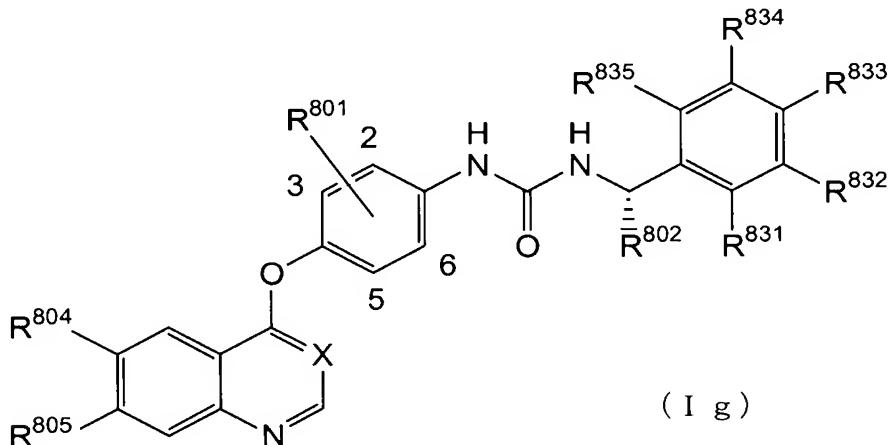


Claim 61 (Original): The compound according to claim 60, wherein R<sup>702</sup> represents methyl.

Claim 62 (Previously Presented): The compound according to claim 60, wherein R<sup>704</sup> and R<sup>705</sup> represent methoxy.

Claim 63 (Previously Presented): The compound according to claim 60, wherein R<sup>704</sup> represents methoxy, and R<sup>705</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 64 (Currently Amended): ~~The compound according to claim 1, represented by~~  
A compound of formula (Ig) or a pharmaceutically acceptable salt or solvate thereof:



wherein

X represents CH or N,

R<sup>801</sup> represents a hydrogen atom, a fluorine atom at 2-position, a fluorine atom at 3-position, a chlorine atom at 2-position, a chlorine atom at 3-position, methyl at 2- and 3-positions, methyl at 2- and 5-positions, methoxy at 2-position, methoxy at 3-position, methyl at 2-position, or trifluoromethyl at 2-position,

R<sup>802</sup> represents C<sub>1-4</sub> alkyl,

R<sup>804</sup> and R<sup>805</sup>, which may be the same or different, represent a hydrogen atom; hydroxyl; nitro; cyano; a halogen atom; -NR<sup>806</sup>R<sup>807</sup> wherein R<sup>806</sup> and R<sup>807</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>808</sup> wherein R<sup>808</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>809</sup>R<sup>810</sup> wherein R<sup>809</sup> and R<sup>810</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; —CONR<sup>811</sup>R<sup>812</sup> wherein R<sup>811</sup> and R<sup>812</sup>, which may be the same or different, represent a

hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>813</sup> wherein R<sup>813</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>814</sup>R<sup>815</sup> wherein R<sup>814</sup> and R<sup>815</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; —COOR<sup>816</sup> wherein R<sup>816</sup> represents a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>817</sup> wherein R<sup>817</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>818</sup>R<sup>819</sup> wherein R<sup>818</sup> and R<sup>819</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; C<sub>1-6</sub> alkyl; C<sub>2-6</sub> alkenyl; C<sub>2-6</sub> alkynyl; or C<sub>1-6</sub> alkoxy, in which the alkyl, alkenyl, alkynyl, and alkoxy groups are optionally substituted by hydroxyl, a halogen atom, -OR<sup>820</sup> in which R<sup>820</sup> represents C<sub>1-4</sub> alkyl, -NR<sup>821</sup>R<sup>822</sup> wherein R<sup>821</sup> and R<sup>822</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl or -OR<sup>823</sup> wherein R<sup>823</sup> represents C<sub>1-4</sub> alkyl, or a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by one or two halogen atoms or C<sub>1-4</sub> alkyl, and R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup>, which may be the same or different, represent a hydrogen atom; hydroxyl; C<sub>1-6</sub> alkyl; -OR<sup>836</sup> wherein R<sup>836</sup> represents C<sub>1-4</sub> alkyl; a halogen atom; nitro; or -NR<sup>837</sup>R<sup>838</sup> wherein R<sup>837</sup> and R<sup>838</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>839</sup> wherein R<sup>839</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>840</sup>R<sup>841</sup> wherein R<sup>840</sup> and R<sup>841</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl.

Claim 65 (Original): The compound according to claim 64, wherein X represents CH and all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 66 (Original): The compound according to claim 65, wherein all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents C<sub>1-6</sub> alkyl, -OR<sup>836</sup>, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 67 (Original): The compound according to claim 65, wherein R<sup>831</sup> represents methoxy and R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>832</sup> represents a bromine atom or methoxy and R<sup>831</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>833</sup> represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R<sup>831</sup>, R<sup>832</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom.

Claim 68 (Previously Presented): The compound according to claim 65, wherein R<sup>804</sup> and R<sup>805</sup> represent methoxy.

Claim 69 (Previously Presented): The compound according to claim 65, wherein R<sup>804</sup> represents methoxy and R<sup>805</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 70 (Original): The compound according to claim 64, wherein X represents CH, R<sup>802</sup> represents methyl, and all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 71 (Original): The compound according to claim 70, wherein all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents C<sub>1-6</sub> alkyl, -OR<sup>836</sup>, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 72 (Original): The compound according to claim 70, wherein R<sup>831</sup> represents methoxy and R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>832</sup> represents a bromine atom or methoxy and R<sup>831</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>833</sup> represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R<sup>831</sup>, R<sup>832</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom.

Claim 73 (Previously Presented): The compound according to claim 70, wherein R<sup>804</sup> and R<sup>805</sup> represent methoxy.

Claim 74 (Previously Presented): The compound according to claim 70, wherein R<sup>804</sup> represents methoxy and R<sup>805</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 75 (Original): The compound according to claim 64, wherein X represents N and all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 76 (Original): The compound according to claim 75, wherein all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents C<sub>1-6</sub> alkyl, -OR<sup>836</sup>, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 77 (Original): The compound according to claim 75, wherein R<sup>831</sup> represents methoxy and R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>832</sup> represents a bromine atom or methoxy and R<sup>831</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>833</sup> represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R<sup>831</sup>, R<sup>832</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom.

Claim 78 (Previously Presented): The compound according to claim 75, wherein R<sup>804</sup> and R<sup>805</sup> represent methoxy.

Claim 79 (Previously Presented): The compound according to claim 75, wherein R<sup>804</sup> represents methoxy and R<sup>805</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 80 (Original): The compound according to claim 64, wherein X represents N, R<sup>802</sup> represents methyl, and all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents a group other than a hydrogen atom and the remaining groups represent a hydrogen atom.

Claim 81 (Original): The compound according to claim 80, wherein all of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or any one of R<sup>831</sup>, R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represents C<sub>1-6</sub> alkyl, -OR<sup>836</sup>, a halogen atom, or nitro and the remaining groups represent a hydrogen atom.

Claim 82 (Original): The compound according to claim 80, wherein R<sup>831</sup> represents methoxy and R<sup>832</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>832</sup> represents a bromine atom or methoxy and R<sup>831</sup>, R<sup>833</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom, or R<sup>833</sup> represents a bromine atom, a chlorine atom, a fluorine atom, methyl, methoxy, or nitro and R<sup>831</sup>, R<sup>832</sup>, R<sup>834</sup>, and R<sup>835</sup> represent a hydrogen atom.

Claim 83 (Previously Presented): The compound according to claim 80, wherein R<sup>804</sup> and R<sup>805</sup> represent methoxy.

Claim 84 (Previously Presented): The compound according to claim 80, wherein R<sup>804</sup> represents methoxy and R<sup>805</sup> represents C<sub>1-4</sub> alkoxy substituted by a saturated or unsaturated five- or six-membered carbocyclic or heterocyclic group.

Claim 85 (Cancelled)

Claim 86 (Previously Presented): A pharmaceutical composition comprising a compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof as an active ingredient.

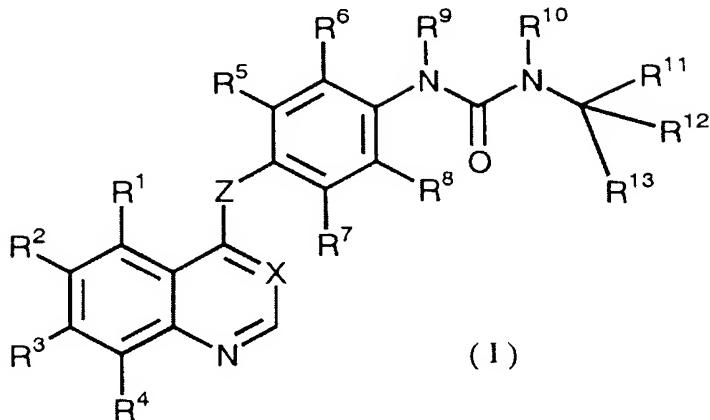
Claims 87-90. (Cancelled)

Claim 91 (Currently Amended): A method for treating and preventing a disease osteoporosis or bone metastasis of a malignant tumor for which the inhibition of macrophage colony-stimulating factor receptor autophosphorylation is effective therapeutically, said method comprising:

~~the step of~~

administering a therapeutically or prophylactically effective amount of a compound according to claim 1 of formula I or a salt or solvate thereof or a pharmaceutically acceptable salt or solvate thereof to a mammal in need thereof,

wherein formula I is:



wherein

X represents CH or N;

Z represents O or S;

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup>, which may be the same or different, represent a hydrogen atom; a halogen atom; hydroxyl; cyano; C<sub>1-6</sub> alkyl; C<sub>1-6</sub> alkoxy; C<sub>2-6</sub> alkenyl; C<sub>2-6</sub> alkynyl; nitro; -NR<sup>106</sup>R<sup>107</sup> wherein R<sup>106</sup> and R<sup>107</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>108</sup> wherein R<sup>108</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>109</sup>R<sup>110</sup> wherein R<sup>109</sup> and R<sup>110</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; -CONR<sup>111</sup>R<sup>112</sup> wherein R<sup>111</sup> and R<sup>112</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>113</sup> wherein R<sup>113</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>114</sup>R<sup>115</sup> wherein R<sup>114</sup> and R<sup>115</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl; or -COOR<sup>116</sup> wherein R<sup>116</sup> represents a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>117</sup> wherein R<sup>117</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>118</sup>R<sup>119</sup> wherein R<sup>118</sup> and R<sup>119</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, C<sub>2-6</sub> alkenyl, and C<sub>2-6</sub> alkynyl groups are optionally substituted by a halogen atom; hydroxyl; C<sub>1-4</sub> alkyl; C<sub>1-4</sub> alkoxy; C<sub>1-4</sub> alkoxy carbonyl; amino in which one or two hydrogen atoms on the

amino group each are optionally substituted by C<sub>1-4</sub> alkyl optionally substituted by hydroxyl or C<sub>1-4</sub> alkoxy; group R<sup>15</sup>R<sup>16</sup>N-C(=O)-O- wherein R<sup>15</sup> and R<sup>16</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl or C<sub>1-4</sub> alkoxy; or group R<sup>17</sup>-(S)<sub>m</sub>- wherein R<sup>17</sup> represents a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group optionally substituted by a halogen atom or C<sub>1-4</sub> alkyl and m is 0 (zero) or 1,

R<sup>4</sup> represents a hydrogen atom,

R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, and R<sup>8</sup>, which may be the same or different, represent a hydrogen atom, a halogen atom, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, C<sub>1-4</sub> alkylthio, trifluoromethyl, nitro, or amino, R<sup>9</sup> and R<sup>10</sup>, which may be the same or different, represent a hydrogen atom, C<sub>1-6</sub> alkyl, or C<sub>1-4</sub> alkylcarbonyl, and

any one of R<sup>11</sup> and R<sup>12</sup> represents a hydrogen atom while the other represents C<sub>1-4</sub> alkyl, and R<sup>13</sup> represents a saturated or unsaturated three- to seven-membered carbocyclic or heterocyclic group or a saturated or unsaturated nine- to twelve-membered bicyclic carbocyclic group in which the carbocyclic and heterocyclic groups are optionally substituted by a halogen atom; hydroxyl; C<sub>1-4</sub> alkyl; C<sub>1-4</sub> alkoxy; C<sub>1-4</sub> alkylthio; trifluoromethyl; nitro; or -NR<sup>137</sup>R<sup>138</sup> wherein R<sup>137</sup> and R<sup>138</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl in which the alkyl group is optionally substituted by hydroxyl, -OR<sup>139</sup> wherein R<sup>139</sup> represents C<sub>1-4</sub> alkyl, or -NR<sup>140</sup>R<sup>141</sup> wherein R<sup>140</sup> and R<sup>141</sup>, which may be the same or different, represent a hydrogen atom or C<sub>1-4</sub> alkyl, or

R<sup>11</sup> represents a hydrogen atom, and R<sup>12</sup> and R<sup>13</sup> may combine with a carbon atom attached thereto to form a saturated or unsaturated nine- to twelve-membered bicyclic carbocyclic group.

Claim 92 (Currently Amended): The method ~~for treating and preventing~~ according to claim 91, wherein the disease is osteoporosis

~~for which the inhibition of macrophage colony stimulating factor receptor autophosphorylation is effective therapeutically is bone metastasis of malignant tumors including breast cancer, prostatic cancer, and lung cancer; multiple myeloma; osteoporosis; Behcet's disease; or rheumatoid arthritis.~~

Claim 93 (New): The method of claim 92, wherein the disease is a bone metastasis of a malignant tumor where the malignant tumor is selected from the group consisting of breast cancer, prostatic cancer, lung cancer, and multiple myeloma.

Claim 94 (New): The method of claim 91, wherein said compound is that of formula I or a salt thereof.

Claim 95 (New): The compound according to claim 19, which is selected from the group consisting of:

(70)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl-N'-(1-(1,3-thiazol-2-yl)ethyl]urea;

(71)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-(1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(72)N-{4[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl)-N'-(1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(73)N-{4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-(1-(1,3-thiazol-2-yl)ethyl]urea;

(74)N- {4[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl} -N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(75)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[ (1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(76)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl} -N'-[ (1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(77)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(78)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[ (1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(79)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[ (1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(80)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[1-(1,3-thiazol-2-yl)ethyl]urea;

(81)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[ (1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(82)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl}-N'-[ (1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(86)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[ (1S)-1-(1,3-thiazol-2-yl)ethyl]urea;

(87)N- {4[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[ (1R)-1-(1,3-thiazol-2-yl)ethyl]urea;

(88)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N' -11-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(89)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(90)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(91)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(93)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[1-(4-methyl-1,3-thiazol-2-yl)ethyl]urea;

(94)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(95)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(98)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(99)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(4,5-dimethyl-1,3-thiazol-2-yl)ethyl]urea;

(100)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea;

(101)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea; and

(105)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl}-N'-[1-(5-methyl-1,3-thiazol-2-yl)ethyl]urea.

Claim 96 (New): The compound according to claim 22, which is selected from the group consisting of:

(2)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(5)N- {2-Chloro-4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(8)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,5-dimethylphenyl}-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(11)N- {3-Chloro-4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}- N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(14)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methylphenyl}- N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(17)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-methoxyphenyl} -N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(20)N- [4-(6,7-dimethoxy-4-quinolyl)oxy]-2-(trifluoromethyl) phenyl]-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(23)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-methoxyphenyl} -N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(26)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2,3-dimethylphenyl}-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(29)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-2-fluorophenyl}-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(32)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]-3-fluorophenyl}-N' -[(1S)-1- (4-fluorophenyl)ethyl]urea;

(34)N- [(1S)-1-(4-bromophenyl)ethyl]-N' -{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}urea;

(35)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N'-(1S)-1 -(4-nitrophenyl)ethyl]urea;

(41)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-W-[(1S)-1 -(4-methylphenyl)ethyl]urea;

(46)N-[(1S)-1-(3-bromophenyl)ethyl]-N'-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}urea;

(47)N-[(1S)-1-(4-chlorophenyl)ethyl]-N'-{4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}urea;

(49)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N' -[(1S)-1 -(3-methoxyphenyl)ethyl]urea;

(51)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N' -[(1S)-1 -(2-methoxyphenyl)ethyl]urea; and

(53)N- {4-[(6,7-dimethoxy-4-quinolyl)oxy]phenyl}-N' -[(1S)-1 -(4-methoxyphenyl)ethyl]urea.